

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF SOUTH CAROLINA  
CHARLESTON DIVISION**

<b>JOHN E. HASKINS and MARY L. HASKINS</b>	)	<b>C/A NO. 2:15-CV-02086-DCN</b>
<b>Plaintiffs,</b>	)	<b>MOTION FOR RECONSIDERATION</b>
	)	<b>AND/OR CLARIFICATION OF</b>
<b>VS.</b>	)	<b>ORDER GRANTING MOTION TO</b>
<b>3M COMPANY, et al.</b>	)	<b>EXCLUDE SPECIFIC CAUSATION</b>
	)	<b>TESTIMONY OF DR. BEDROSSIAN</b>
<b>Defendants.</b>	)	

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**INTRODUCTION**

Pursuant to Rule 59(e) of the Federal Rules of Civil Procedure, Plaintiffs John E. Haskins and Mary L. Haskins, by and through counsel hereby submit this Motion for Reconsideration of the Court's Order [Dkt. No.217] granting Air and Liquid Systems' ("Buffalo Pumps") Motion to Exclude the specific causation testimony of Dr. Bedrossian [Dkt. No.176].

On July 21, 2017, this Court entered an Order granting Buffalo Pumps' Motion to Exclude. In the Order, the Court acknowledges Dr. Bedrossian's opinions--(1) there is a dose-response relationship between asbestos exposure and the risk of developing mesothelioma; (2) different exposures contribute to the total cumulative dose of asbestos exposure and it is the total cumulative dose that ultimately causes mesothelioma in humans; and (3) mesothelioma may result from short exposures--"find enough support in the scientific literature that any attempt to challenge them would not disturb their reliability."<sup>1</sup> [Order, pp.10-11]. However, the Court concluded that "[t]he

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<sup>1</sup> To the extent that Dr. Bedrossian's specific causation opinion with respect to Buffalo Pumps is excluded, Plaintiffs seek clarification as to whether he is still permitted to testify as to these scientific principles, which go directly to the issues in this case. As Rule 702 indicates, expert testimony is only permitted if it assists the trier of fact to understand evidence or to determine a fact in issue. Because Dr. Bedrossian's testimony will "employ scientific, technical, or

trouble with Bedrossian's opinions is his application of these principles to conclude that, because Haskins . . . exposures to the defendants' asbestos-containing products were—by definition—part of their respective ‘cumulative doses,’ such exposures significantly contributed to their development of mesothelioma.” [Order, p. 12]. The Court held that Bedrossian’s opinions evaluate causation in a manner inconsistent with the applicable legal standard under Lindstrom, and therefore must be excluded. Id. at 15.

However, it appears that the Court misunderstood Dr. Bedrossian’s specific causation testimony and confused the scientific axiom that exposures to asbestos above background levels contribute to the total cumulative dose of asbestos exposure and it is this total cumulative dose that causes the disease, with the issue of whether a subset of exposures to one defendant’s asbestos-containing products is a “substantial contributing factor” in the development of a plaintiff’s mesothelioma to a reasonable degree of medical certainty. As discussed more fully herein, Plaintiffs respectfully request this Honorable Court GRANT the instant Motion for Reconsideration and DENY Buffalo Pumps’ Motion to Exclude because Dr. Bedrossian’s causation opinion with respect to Buffalo Pumps is based on a specific analysis of Mr. Haskins’ asbestos exposure from his work with Buffalo pumps and is consistent with the applicable legal standard. Therefore, it is probative on the issue of specific causation, relevant and helpful to the jury, and should thus be allowed.

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other specialized knowledge,” it is “presumed to be helpful.” See Bouygues Telecom, S.A. v. Tekelec, 472 F.Supp.2d 722, 728 (E.D.N.C. 2007) (quoting Kopf v. Skymr, 993 F.2d 374, 377 (4th Cir. 1993)). Moreover, his testimony on general causation of asbestos-related disease is necessarily relevant and should be admissible to “assist the trier of fact to understand the evidence [and] to determine [facts] in issue.” Fed. R. Evid. 702.

## ARGUMENT

The specific causation opinion at issue in this case comes by way of hypothetical question.<sup>2</sup>

Dr. Bedrossian was asked to assume the following facts based on the evidence in this case:

I want you to assume the following facts about Mr. Haskins' asbestos exposure from removing asbestos gaskets from Buffalo pumps we believe will be shown by the testimony of the fact witnesses at trial. I want you to assume that Mr. Haskins served in the United States Navy from January 1953 to May 1956 and served aboard the USS *Cony*. I want you to further assume that Mr. Haskins was a fireman assigned to the forward engine room. I want you to assume for a three-month period of time, his regular duty on a daily basis was to assist the mechanics in repairing Buffalo pumps in the engine room. I want you to assume that Mr. Haskins' job every day for three months was to use a scraper and a wire brush to remove old asbestos-containing gaskets from Buffalo pumps which took approximately one hour per gasket, and he did this during his regular work day for approximately a three-month period of time. Finally, I want you to assume that this process created visible dust which Mr. Haskins inhaled. And, finally, I want you to assume that he was also exposed to asbestos from asbestos-containing insulation onboard the ships which was disturbed either when the ship was overhauled and repaired at sea or when the ship was vibrating.

...

Q. Okay. Focusing first on the total of the history, both in your report and what I just read to you, what conclusion do you draw as to what caused Mr. Haskins' mesothelioma?

A. It was the cumulative exposure derived from the activities that you described where he handled asbestos-containing materials and created visible dust that he inhaled.

...

... .Each of the exposures were a contributor to the sum total that makes up the cumulative dose.

Q. Was the gasket exposure medically significant to you?

A. Yes.

Q. And did you believe it was a contributing cause of his mesothelioma in a medically significant way?

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<sup>2</sup> As the Court concluded in its Order, “it is clear that defendants understand the nature of Bedrossian’s opinions and how Plaintiffs intend to present them at trial—namely, by having Bedrossian explain the causal principles outlined in his report and answer hypothetical questions based on Haskins . . . experiences with defendants’ specific products.” [Order, p.8].

A. Yes, it was.

Q. Is "substantial contributing factor" a medical term, or is that a term that you were asked about in courtrooms like this one in front of juries?

A. It's more of a legal term.

Q. Okay. If I were to tell you or ask you to say -- what I mean by "substantial" is it makes a real and important contribution to the medical situation that developed in Mr. Haskins. It was not trivial and not hypothetical, but it was significant and important. Was the exposure to asbestos from working to remove gaskets from Buffalo pumps equipment that were on the bonnets of Buffalo pumps equipment for three months a substantial contributing cause of Mr. Haskins' mesothelioma?

A. Yes. Or medically was a significant contributing factor.

[Hr'g Tr. 69-72] [Dkt. No.212]. Based on this testimony, the Court concluded that "in Bedrossian's view, whenever the total cumulative dose results in mesothelioma, every 'occupational' exposure should be considered causative, no matter how small," and "it is inconsistent with the law [under Lindstrom]." [Order, p.13]. The Court also opined that "[e]ven if Bedrossian's opinions could be distinguished from the 'every exposure' opinion offered in Lindstrom and regarded as 'low exposure' opinions—which they cannot—the court would reach the same result, as Bedrossian has failed to offer a viable explanation for why plaintiff's exposures to defendants' products can be considered substantial causes, while lower-level exposures cannot."

Id. at 15.

In reaching these conclusions, it appears that the Court has confused the scientific fact that every exposure cumulatively contributes to the total dose (which in turn increases the likelihood of disease), with the jury question of whether particular exposures to asbestos are "substantial factors" in causing the disease (as that legal term is defined in the jury instructions). It is true that Dr. Bedrossian testified that every occupational exposure to asbestos contributes to the total

cumulative dose, and it is the total cumulative exposure that ultimately causes the disease mesothelioma. [Hr'g Tr. 63-64, 109]. As the Court recognized, this opinion is scientifically supported. See [Order, pp.10-11]. Dr. Bedrossian also testified that there is no scientific basis for the opinion that breathing background levels of asbestos found in the ambient air causes the mesothelioma. [Hr'g Tr. 130-132]. Using his medical knowledge about the human respiratory system and arithmetic, Dr. Bedrossian explained how occupational exposure to someone hand-scraping asbestos gaskets, like Mr. Haskins did on Buffalo Pumps on a daily basis for three months, results in exposure to billions more asbestos fibers than someone breathing ambient air and, therefore, such exposures must be considered part of the total cumulative dose of asbestos exposure and causative of the disease. Id. at 56-60. However, these principles merely serve to support Dr. Bedrossian's specific causation opinion with respect to Buffalo Pumps in this case; they do not complete it.

Testimony about background level exposure to asbestos, dose-response, and contribution to total cumulative dose, which ultimately causes the disease, are fundamental scientific facts necessary to a clear understanding of the causation process for mesothelioma, even if those facts themselves do not establish legal (substantial factor) causation. In this case, while Dr. Bedrossian clearly testified that all of Mr. Haskins exposures to asbestos above the background level cumulatively contributed to his development of mesothelioma, he never testified that every exposure to asbestos was a "substantial factor" in contracting the disease. See, e.g., [Hr'g Tr. 109] ("We cannot blame one fiber."). This is significant because, as this Court correctly recognized, science and the law are two separate concepts. See [Order, p.20 n.13] ("[T]he Court is convinced that the better characterization of this case is that Bedrossian is offering an opinion that finds support in the relevant scientific literature, but is simply not probative of the legal issue of specific

causation). As discussed herein, Dr. Bedrossian's scientific testimony stems from a generally accepted methodology, is consistent with the applicable legal standard, and will assist the jury decide the issue of substantial factor causation according to its legal definition as they are instructed by the Court.

### **1. Dr. Bedrossian's Specific Causation Opinion is Defendant-Specific and Satisfies the Applicable Legal Standard**

The Court's exclusion of Dr. Bedrossian's specific causation testimony appears to turn on the mistaken belief that Dr. Bedrossian, like the expert in Lindstrom, "failed to conduct any defendant-specific analysis and relied heavily on the principle that 'there is no safe level of asbestos exposure' to conclude that" any of Mr. Haskins' exposures to asbestos were substantial contributing factors to his mesothelioma. However, Dr. Bedrossian **did not** and **will not** testify that every exposure Mr. Haskins had to asbestos was a "substantial contributing factor" in the causation of his mesothelioma. Instead, by way of a hypothetical question that detailed the entirety of Mr. Haskins' exposure to asbestos from Buffalo Pumps, Dr. Bedrossian testified that Mr. Haskins' actual exposure to asbestos from his work on Buffalo Pumps over the course of three months was "medically . . . a significant contributing factor" and a "substantial contributing cause" of his mesothelioma. [Hr'g Tr. 72]. While Dr. Bedrossian rendered his opinion to a reasonable degree of **medical** certainty, it satisfies the applicable "substantial factor" **legal** standard.

"To support a reasonable inference of substantial causation from circumstantial evidence, there must be evidence of exposure to a specific product on a regular basis over some extended period of time in proximity to where the plaintiff actually worked." Lohrmann v. Pittsburgh Corning Corp., 782 F.2d 1156, 1162-63 (4th Cir. 1986).<sup>3</sup> The hypothetical question posed to Dr.

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<sup>3</sup> As this Court noted in its Order, "[t]here does not appear to be any significant difference between the specific causation requirements of maritime law and the Lohrmann test. In fact, one court has explicitly noted the similarity

Bedrossian sufficiently set forth facts from which he could derive the regularity, frequency and proximity of Mr. Haskins' exposure to asbestos from Buffalo pumps as evidenced by the facts in this case. Specifically, for a **three month** period, on a **daily** basis, his primary job responsibility was to **use a scraper and a wire brush to remove old asbestos-containing gaskets from Buffalo pumps**, which took approximately one hour per gasket, and created **visible dust which he inhaled**. See [Hr'g Tr. 69]. Given this hypothetical, Dr. Bedrossian then relied on his knowledge of exposure ranges and "information from the literature, from Dr. Millette and other studies, that gaskets do release [asbestos] fibers to a considerable concentration" to obtain the ranges of exposure Mr. Haskins encountered from his work with Buffalo Pumps. Id. at 79-80, 91. Specifically, Dr. Bedrossian testified as follows:

Q. Now, as part of your review of the literature, have you collected and put into a binder literature relating specifically to the types of asbestos exposures experienced when people do things like remove gaskets from a [pump]?

A. Yes, I have.

Q. And have you -- you brought with you to a deposition a list of that literature. I believe you have collected it into a notebook. Is that correct?

A. Correct.<sup>4</sup>

...

Q. Have you picked out a couple of examples of the fiber levels that you have seen in the literature that you take into account in a qualitative manner in assessing causation?

A. Yes, I did.

Q. Are you familiar with a work practice simulation done by Millette in 1995 that describes the levels of exposure experienced with doing various things to gaskets, including hand-scraping or sweeping up after?

A. Right.

<sup>4</sup> between the Lohrmann test and the substantial factor test under maritime law." [Order, p.13 n.7] (citing Krik v. Crane Co., 76 F. Supp. 3d 747, 753 (N.D. Ill. 2014)).

<sup>4</sup> See Dr. Bedrossian's Gasket Bibliography attached as Exhibit A.

Q. And these would be asbestos-containing gaskets?

A. Yes.

Q. And does this table on slide 53 have some of the fiber levels that are .14 to - - for the hand-scraping; 5.5 for sweeping of the area after removal?

A. Correct.

Q. And are you familiar with a paper by William Longo and some coauthors where they also examined both the fiber levels associated with using hand scrapers and with using power tools to remove gaskets?

...

A. Correct.

Q. And what was the fiber level per cubic centimeter shown as an example from using hand-scraping both on a short-term level and a TWA level?

A. Was 10.1 -

Q. And -

A. -- per cubic centimeter.

Q. And do you understand TWA to be time-weighted average exposure?

A. Correct.

Q. And that would mean over an eight-hour day, somebody doing that activity would be exposed to what?

A. 1.5 fiber per cc

[Hr'g Tr. 54-56]; see James R. Millette, Releasability of Asbestos Fibers from Asbestos-Containing Gaskets, EIA TECHNICAL JOURNAL (Fall 1995) (Attached as Exhibit B); William E. Longo, Fiber Release During the Removal of Asbestos-Containing Gaskets: A Work Practice Simulation, 17(1) APPLIED OCC. & ENVTL HYGIENE 55, 58 (2002) (Exposure of 1.0 fibers per cc for "Assistant" over 8-hr TWA) (Attached as Exhibit C).

To put this exposure in perspective, Dr. Bedrossian, using the slightly lesser exposure level of 1 fiber per cc (for “Assistant” from Longo’s gasket removal study), compared what Mr. Haskins’ asbestos exposure would have been on a daily basis for three months from his work on Buffalo Pumps with the amount of asbestos fibers he would have inhaled from ambient air. See [Hr’g Tr. 56-60]. Accordingly, Mr. Haskins would have inhaled over 3,840,000 asbestos fibers each day for three months from his work on Buffalo Pumps compared to 432 asbestos fibers in each 24 hour day. Id. at 59-60 (Q. Am I correct that one day of occupational level of exposure, such as scraping gaskets off a flange, you would breathe approximately 4 million fibers versus 432 if you are not exposed to asbestos? A. Right, if you determined that the concentration is one fiber per cc. If it's higher than that would be several million); see Bedrossian slides (Attached as Exhibit D). Exposure to 4 million asbestos fibers each day for 3 months is a substantial exposure; this range of exposure to asbestos for a few days is sufficient to cause mesothelioma.<sup>5</sup> However, significantly, Dr. Bedrossian did not stop his analysis there. He also looked to relevant scientific evidence, including epidemiological studies, to determine how asbestos exposure consistent with the exposure that Mr. Haskins experienced from Buffalo Pumps affects one’s risk of developing mesothelioma:

Q. In addition to medical journal literature that talks about cases or case series, is there analytical epidemiology that analyzes from a mathematical epidemiology perspective the nature and level of exposure of asbestos where you have increased risk?

A. Yes. There are case-controlled studies. There are cohort studies. There are population studies, including surveillance programs for countries that have that.

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<sup>5</sup> See, e.g., Morris Greenberg & T.A. Lloyd Davies, Mesothelioma Register 1967-68, 31 BRIT. J. INDUS. MED. 91, 96-103 (1974) (documenting mesothelioma following an asbestos exposure of 3 weeks in one case and 1 day in another) [Dkt. No.179-10]; K. Browne & W.J. Smither, Asbestos-Related Mesothelioma: Factors Discriminating Between Pleural and Peritoneal Sites, 40 BRIT. J. INDUS. MED. 145, 147 (1983) (In a study of 143 cases of mesothelioma, 32 cases were exposed for under one year, of whom 21 had no more than six months of exposure and 9 had no more than three months.) [Dkt. No.179-11]; U.S. DEP’T OF HEALTH, EDUCATION, AND WELFARE, NAT’L INSTITUTE FOR OCCUPATIONAL SAFETY & HEALTH, REVISED RECOMMENDED ASBESTOS STANDARD 32 (1976) (“[S]tudies have shown an association between asbestos and mesothelioma even with exposures as brief as 1 day.”) [Dkt. No.179-12].

[Hr'g Tr. 41-42]

Q. And am I correct that the Rodelsperger paper talks about there is a causation even at a cumulative exposure level below one fiber?

A. Correct.

Q. Are you familiar with a paper -- it's in your bibliography -- relating to gasket studies, but a paper entitled "Occupational and non-occupational attributable risk to asbestos exposure for malignant pleural mesothelioma"?

A. Yes.

Q. The lead author is Lacourt in 2014?

A. Correct.

Q. And you regard this as reliable and authoritative on the question of what kinds of exposures can cause mesothelioma?

A. Yes, I do

...

Q. What does it mean to have an odds ratio of 4.0 for any exposure greater than zero, less than one fiber cc years?

A. Did it say "one and zero"?

Q. No, greater than zero, between zero and .1, there is an odds ratio of 4.0.

A. It means even at the low level, the ratio of the odds that the patient will develop mesothelioma are increased. So even at that low dose, the patient will develop mesothelioma.

[Hr'g Tr. 43-44]; see A. Lacourt, Occupational and Non-occupational Attributable Risk of Asbestos Exposure for Malignant Pleural Mesothelioma, THORAX 1 (2014) ("A clear dose-response relationship was observed between occupational asbestos exposure and pleural mesothelioma (**OR=4.0 (99% CI 1.9 to 8.3) for men exposed at less than 0.1 f/mL-year vs 67.0 (99% CI 25.6 to 175.1) for men exposed at more than 10 f/mL-year**) (emphasis added) (Attached

as Exhibit E). Specifically, an odds ratio of 4.0 means that an individual with asbestos exposure in the range between background levels and 0.1 fibers per cc/year is **4 times more likely to develop mesothelioma** than someone without asbestos exposure above the amount present in the ambient air. As this Court noted in its Order, “information about risk should at least be able to inform the substantial causation analysis—especially in the mesothelioma context, where a single cause can rarely be identified.” [Order, p.20 n.12]. In the instant matter, the fact that Mr. Haskins’ defendant-specific range of exposure to asbestos at least increased his risk of developing mesothelioma four-fold is more than sufficient to support Dr. Bedrossian’s opinion that Mr. Haskin’s exposure to asbestos from his work on Buffalo Pumps was “medically . . . a significant contributing factor” and a “substantial contributing cause” of his mesothelioma. The fact that Dr. Bedrossian’s analysis was consistent with the applicable legal standard makes his specific causation opinion both probative and admissible.

## **2. Medical Experts are not required to Calculate a Defendant-Specific Cumulative Dose in Order to Render a Specific Causation Opinion**

As the Court points out, Dr. Bedrossian did not calculate a total cumulative dose of asbestos that Mr. Haskins would have been exposed to as a result of his work with Buffalo Pumps specifically. [Order, p.12]. However, as Dr. Bedrossian testified, he is not an industrial hygienist and it is not his role nor is it necessary to attempt to make such a quantification. [Hr’g Tr. 79] (“Correct. And the reason I didn’t is because it’s not necessary.”). It is not necessary because industrial hygienists such as Dr. Millette have conducted studies of individuals performing various tasks with asbestos-containing products, including hand-scraping gaskets like Mr. Haskins did, and have published those results. Id. at 79-80, 91. Dr. Bedrossian relies on these task-specific **ranges of asbestos exposure**, as well as factual details about the frequency, regularity, and proximity of exposure, and epidemiological studies in order to render his causation opinions.

Notably, a total cumulative dose or even comparative dose analysis is not required in order to determine whether a set of exposures to a particular defendant's products medically constitutes a substantial contributing factor to an individual's mesothelioma. While the Court references Bostic v. Georgia-Pac. Corp., 439 S.W. 3d 332 (Texas 2014) and states that it is "convinced that a robust concept of 'substantial causation' should account for the broader context in which a particular exposure occurs—including the defendant's relative contribution to the overall exposure, rather than an assessment of whether its contribution was sufficiently harmful in the abstract," the Court recognizes that the "Lindstrom opinion does not appear to require the sort of contextual analysis described above, and the comparable Lohrmann standard simply looks to the nature, extent, and frequency of a plaintiff's exposure to the defendant's product." [Order, p.18]. In fact, no controlling case law in this jurisdiction, pertaining to asbestos litigation, requires a mathematical quantification or dose of an individual's exposure to asbestos to satisfy proximate causation. The Fourth Circuit has emphasized that the "substantial contributing factor" test must be interpreted and applied practically in toxic tort cases, including asbestos personal injury cases, in view of the scientific and medical reality that it is impossible to prove what precise level of exposure the plaintiff experienced, what precise level of exposure will cause injury, and which specific product (or specific asbestos fibers) caused the illness.

For example, in Westberry v. Gislaved Gummi AB, 178 F.3d 257 (4th Cir. 1999), a toxic tort case, the Fourth Circuit rejected the defendant's argument that the plaintiff's expert's testimony should not be admitted because the expert could not prove "the levels of exposure that are hazardous to human beings generally as well as the plaintiff's actual level of exposure." Westberry, 178 F.3d at 263 (citation and internal quotation marks omitted). The court noted that:

[O]nly rarely are humans exposed to chemicals in a manner that permits a quantitative determination of adverse outcomes. . . . Human exposure occurs most frequently in occupational settings where workers are exposed to industrial chemicals like lead or asbestos; however, even under these circumstances, it is usually difficult, if not impossible, to quantify the amount of exposure.

*Id.* at 264 (quoting Federal Judicial Center, Reference Manual on Scientific Evidence at 187 (1994)) (second alteration in original). The court further explained that “precise information concerning the exposure necessary to cause specific harm to humans and exact details pertaining to the plaintiff’s exposure . . . is not always available, or necessary, to demonstrate that a substance is toxic to humans given substantial exposure and need not invariably provide the basis for an expert’s opinion on causation.” *Id.* (citing Heller v. Shaw Indus., Inc., 167 F.3d 146, 157 (3d Cir. 1999)) (noting “that even absent hard evidence of the level of exposure to the chemical in question, a medical expert could offer an opinion that the chemical caused plaintiff’s illness”).

### **3. There is no Scientific Basis for the Proposition that Background Exposure Causes Asbestos-Related Disease**

According to the Court, “the mere fact that ‘occupational’ or ‘above-background’ exposures contribute to the total cumulative dose fails to explain why Bedrossian views them as more causative than non-occupational or below-background exposures.” [Order, p.16]. However, as Dr. Bedrossian testified, “there are no studies of patients exposed to background where the majority consistently got mesothelioma. . . . Background level exists, but by itself is not a cause of mesothelioma.” [Hr’g Tr. 130-132]. The majority of medical experts involved in asbestos litigation, including Defendant’s own medical expert Dr. Roggli, agree. Dr. Roggli has concluded and testified on numerous occasions that:

The scientific and medical community have yet to determine a level of exposure to asbestos below which mesothelioma does not occur. **While there is no threshold, there is insufficient evidence to implicate levels of exposure to asbestos that occur as a result of background or ambient air exposure. Very low levels of exposure above background, however, have been demonstrated to cause mesothelioma.** It is also my opinion that it is the total dose of asbestos, regardless of fiber type, that the patient experiences that causes the disease.

See Affidavit of Victor L. Roggli, dated May 20, 2005 (emphasis added) [Dkt No.179-20]. As such, background levels of asbestos exposure are not deemed causative of mesothelioma nor included in the total cumulative dose because there is no scientific or medical basis for such a proposition.

#### **4. Dr. Bedrossian's Specific Causation Opinion is a Medical Opinion; Substantial Factor Causation is Legal Standard and Ultimately a Jury Issue**

Finally, the Court states for “Bedrossian’s opinion to have any legal significance, the Court must accept the proposition that each exposure can be considered a ‘substantial cause’ of mesothelioma if it could have independently caused the disease. But this approach would be problematic from both a factual and legal perspective . . . and leads to the bizarre conclusion that any exposure that carries any chance of causing mesothelioma—however minuscule—constitutes a ‘substantial cause,’ regardless of the other exposures that may have contributed to the total cumulative exposure.” [Order, pp.16-17]. In making this observation, the Court again appears to confuse scientifically accepted medical facts with the specific legal issue of substantial factor causation. This is evident by the Court’s statement that “it is clear that this threshold level cannot be defined as the level of exposure that may cause mesothelioma. This would render the substantial causation rule meaningless, as any level of exposure may cause mesothelioma.” *Id.* at 19 (citing Krik, 76 F.Supp. 3d at 752). It appears that the Court is contemplating Dr. Bedrossian’s opinion and citation to a multitude of authorities that have concluded that “there is no safe level of asbestos exposure.” However, this well-accepted scientific conclusion is not the basis for Dr.

Bedrossian's specific causation opinion. Instead, Dr. Bedrossian relied upon a generally accepted methodology, taking into consideration exposure history, individual susceptibility, biological plausibility, and relevant scientific evidence, including epidemiological studies, to render his opinion. Specifically, he was provided with a hypothetical fact pattern consistent with the facts of Mr. Haskin's work with Buffalo Pumps. From this hypothetical, Dr. Bedrossian was able to evaluate the intensity, frequency, regularity, and proximity of Mr. Haskins' asbestos exposure from his work with Buffalo Pumps. Based on known, published ranges of asbestos exposure to individuals hand-scraping gaskets, he calculated how many asbestos fibers Mr. Haskins would have inhaled on a daily basis and how this compares to the background level of asbestos in ambient air. Every day for three months, Mr. Haskins inhaled billions of asbestos fibers over the level for which there is no scientific basis to establish causation of mesothelioma (background level). Finally, Dr. Bedrossian cited to published epidemiological studies that evidence the fact that Mr. Haskins' level of asbestos exposure from Buffalo Pumps not only may cause mesothelioma, but does cause mesothelioma (and increases the risk of developing mesothelioma **four-fold** over someone without the level of exposure that Mr. Haskins suffered as a result of his specific work with Buffalo Pumps). As such, Dr. Bedrossian's expert **medical** opinion (and underlying bases) that Mr. Haskins' exposure to asbestos from Buffalo Pumps was "medically . . . a significant contributing factor" and a "substantial contributing cause" of his mesothelioma is consistent with the applicable legal standard and probative of the jury issue of proximate cause.

Plaintiffs ask the Court to consider the following hypothetical that reveals how application of the Court's ruling excluding Dr. Bedrossian would affect the testimony of medical pathologist experts in a different context:

If there was a multiple-shooter gunshot death case involving 10 shooters who all independently shot the decedent, in which 9 out of 10 shooter-defendants pled out of the case before trial and, at trial, the expert pathologist testified that the bullet from the lone trial defendant's gun was sufficient alone to kill the decedent and medically a "substantial cause" of his death, would Daubert and the Federal Rules of Evidence preclude the medical causation testimony simply because the pathologist made no attempt to put the one bullet from the trial defendant into context of *how* fatal the shot was? It still killed the decedent.

Plaintiffs do not believe that the Court intends such a result. Even if the Court believes, without legal precedent, that Mr. Haskins' specific level of asbestos exposure from Buffalo Pumps should be looked at contextually and comparably with other exposures, the fact that Mr. Haskins' Buffalo Pumps-specific exposure increased his risk of developing mesothelioma four-fold and was a "substantial cause" of his death medically is sufficient to create a genuine issue of material fact as to the issue of "substantial factor" and specific causation. Buffalo Pumps will invariably attempt to present evidence of other exposures at trial as a defense to the element of proximate cause. Buffalo Pumps will also cross-examine Plaintiffs' experts about other asbestos exposures and offer its own expert witnesses who will testify that Mr. Haskins' exposure from his work with Buffalo Pumps was "trivial." However, at the end of the day, such contextual and comparative analysis should occur in the courtroom; whether a subset of exposures to asbestos that are of sufficient frequency, duration and proximity were a substantial factor in causing Mr. Haskins' mesothelioma is a question of fact for the jury. Morales v. Am. Honda Motor Co., 71 F.3d 531, 538 (6th Cir. 1995); Abbott v. Babcock & Wilcox Co., 905 F.2d 201, 204 (8th Cir. 1990).

### **CONCLUSION**

For the reasons stated herein, Plaintiffs respectfully request this Honorable Court GRANT the instant Motion for Reconsideration and DENY Defendant's Motion to Exclude [Dkt. No.176].

Alternatively, Plaintiffs respectfully requests that Dr. Bedrossian be allowed to testify about the fundamental scientific facts necessary to a clear understanding of the causation process

for mesothelioma, even if those facts themselves do not establish legal (substantial factor) causation. Dr. Bedrossian can assist the jury on issues such as the dose-response relationship between asbestos exposure and the risk of developing mesothelioma; the fact that different exposures contribute to the total cumulative dose of asbestos exposure and it is the total cumulative dose that ultimately causes mesothelioma in humans; the fact that mesothelioma may result from short exposures as evidenced in epidemiological studies; the fact that “there is no safe level of asbestos exposure”; the Helsinki criteria for attribution of mesothelioma to asbestos exposures; his knowledge of ranges of asbestos exposure for individuals hand-scraping gaskets, which has been published in the relevant literature; and other issues for which this Court has found “enough support in the scientific literature that any attempt to challenge them would not disturb their reliability.” See [Order, pp.10-11]. Even if he is not allowed to answer the specific causation hypothetical concerning Mr. Haskins’ work specifically with Buffalo Pumps, Dr. Bedrossian’s testimony on these scientific and medical issues will assist the jury in its role to determine the ultimate issue of “substantial factor” and specific causation.

Respectfully submitted this 24<sup>th</sup> day of July 2017,

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